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<110> Gregory, Richard L.

<120> Methods and Compositions for Controlling Dental Caries,  
and Recombinant SmaA Polypeptides Useful for Same

<130> IU97

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<150> 60/132,312

<151> 1999-05-03

<160> 6

<170> PatentIn Ver. 2.1

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Met Asn Gln Lys Ile Val  
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gtc att tcg tca ttt tac atg tta ggt gct cat tca ttt tca aag gca 881  
Val Ile Ser Ser Phe Tyr Met Leu Gly Ala His Ser Phe Ser Lys Ala  
10 15 20

gta tat cat aat gat agg agt gtg aaa ctt atg aaa aga att gat att 929  
Val Tyr His Asn Asp Arg Ser Val Lys Leu Met Lys Arg Ile Asp Ile  
25 30 35

aat cat caa gca caa cgt ttt tct att cgt aaa tat gca ttt gga gct 977  
Asn His Gln Ala Gln Arg Phe Ser Ile Arg Lys Tyr Ala Phe Gly Ala  
40 45 50

gca tct gtt tta att ggc tgg gtc ttt ttt cta ggt acc caa aat gtt 1025  
Ala Ser Val Leu Ile Gly Cys Val Phe Phe Leu Gly Thr Gln Asn Val  
55 60 65 70

tct gca caa gag cag gga act caa ttg cca gca agt gaa aac gca gtt	75	80	85	1073
Ser Ala Gln Glu Gln Gly Thr Gin Leu Pro Ala Ser Glu Asn Ala Val				
gtg aac gtg gct gaa aat tca gtt gct atc agc caa gca gtt gca gat	90	95	100	1121
Val Asn Val Ala Glu Asn Ser Val Ala Ile Ser Gln Ala Val Ala Asp				
aag gca gca act caa aca act cta aca gaa aca ccc caa gtt gaa gtt	105	110	115	1169
Lys Ala Ala Thr Gln Thr Thr Leu Thr Glu Thr Pro Gln Val Glu Val				
gag gag aaa gaa agt aag gta aat gct cct gct tta aat gtc gat gac	120	125	130	1217
Glu Glu Lys Glu Ser Lys Val Asn Ala Pro Ala Leu Asn Val Asp Asp				
aaa ggt gca aaa tcc aaa gaa gat gtg aac cct act att tca aag aca	135	140	145	1265
Lys Gly Ala Lys Ser Lys Glu Asp Val Asn Pro Thr Ile Ser Lys Thr				
gca agt gaa gtg gaa gct tct gca gta act gct act gat act aaa aat	155	160	165	1313
Ala Ser Glu Val Glu Ala Ser Ala Val Thr Ala Thr Asp Thr Lys Asn				
tca aat cca caa gtc aat gtt gaa act gac tca agt gaa aaa gac gaa	170	175	180	1361
Ser Asn Pro Gln Val Asn Val Glu Thr Asp Ser Ser Glu Lys Asp Glu				
aat aaa atg gtc acc tcg gct cca gct aag gag act gag gca gaa caa	185	190	195	1409
Asn Lys Met Val Thr Ser Ala Pro Ala Lys Glu Thr Glu Ala Glu Gln				
aat gag aaa gcg gtc aga gaa aat ctt atg caa aga caa gct aag gct	200	205	210	1457
Asn Glu Lys Ala Val Arg Glu Asn Leu Met Gln Arg Gln Ala Lys Ala				
gtc tca att cca tcg caa ggc aat tat gtt ttc caa gaa aca act cct	215	220	225	1505
Val Ser Ile Pro Ser Gln Gly Asn Tyr Val Phe Gln Glu Thr Thr Pro				
gta aaa aat gca gcc agt atg tcc agc cca acc caa ttt aac ttt gat	235	240	245	1553
Val Lys Asn Ala Ala Ser Met Ser Ser Pro Thr Gln Phe Asn Phe Asp				
aaa gga gat aag gtt ttt tat gat aat gtt tta gaa gcg gat ggg cat	250	255	260	1601
Lys Gly Asp Lys Val Phe Tyr Asp Asn Val Leu Glu Ala Asp Gly His				
caa tgg att agc tat gtg tct tac agt ggt att cgt cgc tat gct cct	265	270	275	1649
Gln Trp Ile Ser Tyr Val Ser Tyr Ser Gly Ile Arg Arg Tyr Ala Pro				
att gct gtg aca att gaa gaa ttg aag caa aaa gaa att gtt cag caa	280	285	290	1697
Ile Ala Val Thr Ile Glu Glu Leu Lys Gln Lys Glu Ile Val Gln Gln				

aat tta ccg gca caa gga acc tat cac ttt act aaa cag cag agc tta	1745
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aaa atg aag cta aac tgt cta gtc cga ccc aat tct cgt ttt aca acg	1793
Lys Met Lys Leu Asn Cys Leu Val Arg Pro Asn Ser Arg Phe Thr Thr	
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Glu Ile Thr Phe Phe Met Ile Arg Phe	
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Met Lys Arg Ile Asp Ile Asn His Gln Ala Gln Arg Phe Ser Ile Arg  
35 40 45

Lys Tyr Ala Phe Gly Ala Ala Ser Val Leu Ile Gly Cys Val Phe Phe  
50 55 60

Leu Gly Thr Gln Asn Val Ser Ala Gln Glu Gln Gly Thr Gln Leu Pro  
65 70 75 80

Ala Ser Glu Asn Ala Val Val Asn Val Ala Glu Asn Ser Val Ala Ile  
85 90 95

Ser Gln Ala Val Ala Asp Lys Ala Ala Thr Gln Thr Thr Leu Thr Glu  
100 105 110

Thr Pro Gln Val Glu Val Glu Glu Lys Glu Ser Lys Val Asn Ala Pro  
115 120 125

Ala Leu Asn Val Asp Asp Lys Gly Ala Lys Ser Lys Glu Asp Val Asn  
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Pro Thr Ile Ser Lys Thr Ala Ser Glu Val Glu Ala Ser Ala Val Thr  
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Ala Thr Asp Thr Lys Asn Ser Asn Pro Gln Val Asn Val Glu Thr Asp  
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Ser Ser Glu Lys Asp Glu Asn Lys Met Val Thr Ser Ala Pro Ala Lys  
180 185 190

Glu Thr Glu Ala Glu Gln Asn Glu Lys Ala Val Arg Glu Asn Leu Met  
195 200 205

Gln Arg Gln Ala Lys Ala Val Ser Ile Pro Ser Gln Gly Asn Tyr Val  
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Phe Gln Glu Thr Thr Pro Val Lys Asn Ala Ala Ser Met Ser Ser Pro  
225 230 235 240

Thr Gln Phe Asn Phe Asp Lys Gly Asp Lys Val Phe Tyr Asp Asn Val  
245 250 255

Leu Glu Ala Asp Gly His Gln Trp Ile Ser Tyr Val Ser Tyr Ser Gly  
260 265 270

Ile Arg Arg Tyr Ala Pro Ile Ala Val Thr Ile Glu Glu Leu Lys Gln  
275 280 285

Lys Glu Ile Val Gln Gln Asn Leu Pro Ala Gln Gly Thr Tyr His Phe

290

295

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Thr Lys Gln Gln Ser Leu Lys Met Lys Leu Asn Cys Leu Val Arg Pro  
305 310 315 320

Asn Ser Arg Phe Thr Thr Glu Ile Thr Phe Phe Met Ile Arg Phe  
325 330 335